

REMARKS

The Office Action dated January 8, 2007, has been received and carefully noted. The above amendments and the following remarks are being submitted as a full and complete response thereto. Claims 1 and 3-14 are pending in this application, and claims 15-18 are withdrawn. By this Amendment, claims 1, 8, 9 and 14 are amended and claim 2 is cancelled without prejudice to or disclaimed of the subject matter disclosed therein. No new matter has been added. Reconsideration of the application is respectfully requested.

The Office Action objects to claim 8, 9 and 14 because of informalities. The claims are amended to correct the informalities and overcome the objection. Accordingly, withdrawal of the objection to the claims is respectfully requested.

The Office Action rejects claims 1 and 3-7 under 35 U.S.C. § 102(e) over DeConde et al. (U.S. Patent No. 6,889,565); claim 2 under 35 U.S.C. § 103(a) over DeConde in view of Satou et al. (U.S. Patent No. 6,631,645); and claims 8-10 and 14-18 under 35 U.S.C. § 103(a) over DeConde in view of Ishio et al. (U.S. Patent No. 6,640,643). The rejections are respectfully traversed.

In particular, none of the applied references, alone or in combination, disclose or suggest a pressure sensor that includes a plural sensor sections, each of the sensor sections includes a first electrode, a first insulating film covering the first electrode, a sensor hole formed in the first insulating film, a cavity located at least above the exposed first electrode, and a second electrode disposed opposite to the first electrode, wherein the first electrode includes a central portion located at about the

center of the sensor section, and an annular portion located in the sensor section and that encloses the central portion, as recited in independent claim 1.

DeConde teaches a sensor for identifying fingerprints that includes an array of cells each including a membrane switch (Abstract). Furthermore, the Office Action admits that DeConde fails to teach that the first electrode a central portion and an annular portion and relies for this feature on Satou (Office Action, page 5, lines 12-15). However, the Office Action is mistaken for the following reasons.

Satou teaches improving the signal-to-noise ratio of an output of a semiconductor pressure sensor by having a sensor of an electrostatic capacitance type for generating an output based upon a ratio between capacitances of a pressure sensitive capacitance element and a reference capacitance element (Abstract). The Office Action asserts that Satou teaches a first electrode 6 including a central portion and an annular portion (Office Action, page 6, lines 1-3). However, a closer examination of Satou reveals that in Fig. 2, the fixed electrode 6 does not have an annular portion. The Office Action appears to rely on the outer circle defined in Fig. 2 as representing the annular portion of the fixed electrode 6. However, there is no continuous connection between the fixed electrode 6 and the outer circle that may suggest that these two parts form a unique element. Furthermore, none of the side views on Figs. 1, 3, 7 or 8 show any such continuity between the fixed electrode 6 and the outer circle. In fact, a closer examination of the manufacturing process illustrated on Fig. 10 shows that a polysilicon film 203 is deposited by chemical vapor deposition, impurities such as phosphorous ions are diffused into the film 203 to make it electrically conductive, and the polysilicon layer is patterned to form fixed electrodes having desired shapes (Col. 6, lines 38-47).

None of the desired shapes of the patterned fixed electrodes, as is evident from Fig. 10, comprise a central portion and an annular portion. Accordingly, the fixed electrode 6 does not have an annular portion, as recited in independent claim 1. Thus, independent claim 1, and its dependent claims, are patentable over a combination of DeConde and Satou.


Ishio teaches first and second capacitive portions formed on a substrate and having different areas for pressure measurement and diagnostics (Abstract). However, Ishio fails to cure deficiencies in DeConde and Satou in disclosing or rendering obvious the features of independent claim 1.

For at least these reasons, independent claim 1, and its dependents claims, are patentable over a combination of the applied references. Thus, withdrawal of the rejection of the claims of 35 U.S.C. § 102(e) and 35 U.S.C. § 103(a) is respectfully requested.

Should the Examiner determine that any further action is necessary to place this application into better form, the Examiner is encouraged to telephone the undersigned representative at the number listed below.

In the event this paper is not considered to be timely filed, the Applicant hereby petitions for an appropriate extension of time. Any fees for such an extension, together with any additional fees that may be due with respect to this paper, may be charged to counsel's Deposit Account No. 01-2300, **referencing Attorney Dkt. No. 102313 -00098.**

Respectfully submitted,



Tarik M. Nabi
Registration Number 55,478

Customer Number 004372
ARENT FOX PLLC
1050 Connecticut Avenue, NW, Suite 400
Washington, DC 20036-5339
Telephone: 202-857-6000
Fax: 202-638-4810

TMN/hla